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Introduction

Public Knowledge and National Hispanic Media Coalition (“Commenters”) commend the Wireline Competition Bureau for drawing attention to important questions about the proper regulatory classification of text messaging. This Public Notice provides an excellent opportunity to reaffirm the importance of the Universal Service Fund (“Fund”) and the critical role it will continue to serve in expanding opportunity and access to communications. Improperly excluding text messaging from the Fund would have a profoundly negative impact on its future viability.

It is critical that the Bureau clarify that text messaging is a Title II service that is subject to Fund contributions. As detailed below, text messaging fits easily within the scope of Title II. Congress intended Title II to be a broad statute capable of adapting to an evolving communications technology reality. The Act specifically uses broad terms like “telecommunications,” as opposed to narrower references like “telephony,” to assure technological neutrality. A narrow reading of the statute would contradict this flexible language.

Excluding text messaging from the Universal Service Fund could open the door to a steady diminution of sources for the Fund. Today, text messaging is sold as a service bundled with voice. Excluding the text message part of this bundle would provide an incentive for carriers to shift as much revenue as possible into text messaging and away from voice (and Fund contribution). Instead of ensuring equitable and nondiscriminatory contributions to the Fund,¹ excluding text messaging would invite gamesmanship and

¹ 17 U.S.C. § 254 (b)(4).

creative accounting by participants motivated to minimize their burden. This would directly undermine the goals of the Fund to provide quality service and access to advanced telecommunications and information services at just, reasonable, and affordable rates.²

The Universal Service Fund Must Be Protected for the Future

Commenters continue to support the goal of universal service for all Americans. In order to be effective, the Fund must both support and draw support from critical communications platforms. Proper classification of text messaging will support both of those goals. As a Title II service, it would be relatively straightforward to support text messaging with the Fund. Additionally, as USAC's letter makes clear, Title II text messages would help contribute towards the sustainability of the Fund.

Chairman Genachowski has noted that "consumer are using their phones less to make calls, and more for texting and sending pictures."³ As the Commission works to modernize the Universal Service Fund, it must come to terms with this reality. The reasons that the Commission has historically cared about voice calling apply just as strongly to text messaging.

Excluding text messaging from the Fund could be the first step in a slow erosion of the Fund's financial foundation. The Bureau must recognize that even as technology evolves, the core values and purposes of the Fund remain the same. To avoid properly

² 17 U.S.C. 254 (b)(1) and (b)(2)

³ Chairman Julius Genachowski, Fed. Comm. Comm'n, *Next-Generation 9-1-1*, (Nov. 23, 2010) *available at* http://www.fcc.gov/Daily_Releases/Daily_Business/2010/db1123/DOC-302989A1.pdf.

classifying text messaging as a Title II service would be to undermine the financial foundations of the Fund. Adopting a narrow, technology specific view of the types of services responsible to contribute to the Fund all but guarantees that the Fund's goals will go unmet in the future.

Text Messaging is a Title II Service

As Public Knowledge, Free Press, Consumer Federation of America, Consumers Union, Educause, Media Access Project, New America Foundation, and U.S. PIRG thoroughly described in their original petition, the proper classification for text messaging is under Title II.⁴ SMS is a Commercial Mobile Radio Service ("CMRS") that interconnects with the Public Switched Telephone Network ("PSTN") and differs in important ways from Title I information services such as email.

Text Messaging Remains Unclassified

Although text messaging has grown in importance for a number of years, the Commission has scrupulously avoided declaring their regulatory status. In its declaratory ruling on wireless broadband, the Commission explicitly contrasted text messaging (a "mobile data application") with wireless broadband services.⁵ In doing so the Commission made clear what text messaging is not (a broadband service), but failed to make clear what text messaging is.

⁴ Public Knowledge, Free Press, Consumer Federation of America, Consumers Union, EDUCAUSE, Media Access Project, New America Foundation, U.S. PIRG, *Petition for Declaratory Ruling*, WT Docket No. 08-7 at 7-16, Dec. 11, 2007, available at <http://www.publicknowledge.org/pdf/text-message-petition-20071211.pdf> ("Petition").

⁵ *In re Appropriate Regulatory Treatment for Access to the Internet Over Wireless Networks*, 22 F.C.C.R. 5901, 5906 (2007).

Similarly, in the Commission's Roaming Order, text messages are addressed but excluded from regulatory classification.⁶ The Commission included text messages in the same category as voice (as an extension of "services offered by CMRS carriers that are real-time, two-way switched voice or data service that are interconnected with the public switched network and utilize an in-network switching facility that enables providers to reuse frequencies and accomplish seamless hand-offs of subscriber calls") when it extended automatic roaming obligations to text messages.⁷ The inclusion of text messaging in automatic roaming obligations stood in contrast to the exclusion of "enhanced digital networks, such as wireless broadband Internet access" from those same obligations.⁸

However, although the Commission held both that SMS was overall an interconnected feature of mobile services and that carriers were subject to common carrier obligations under section 201 and 202 in offering SMS via roaming,⁹ the Commission noted "that nothing in this order should be construed as addressing regulatory classification of push-to-talk, SMS, or other data features/services."¹⁰

Text Messaging is Property Classified as a Title II Common Carrier Service

Text messages meet the requirement for classification as a commercial radio service and should therefore be subject to section 202 nondiscrimination rules. In

⁶ *In re Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers*, 22 F.C.C.R. 15817 (2007) ("Roaming Order").

⁷ *Id.* at 15837.

⁸ *Id.* at 15839.

⁹ *Id.* at 15835.

¹⁰ *Id.* at 15837 fn. 134.

addition to its treatment as a common carrier in the Commission's Roaming Order,¹¹ functionally text messaging is almost identical to commercial mobile radio service. Text messages use the North American Numbering Plan for basic service, they are interconnected with the public switched network, and they give users the ability to communication with others on the network. Each carrier must agree to receive incoming messages from a given short code and route outgoing messages to the entity renting the code with no control over whether those messages are bound for or come from the public switched network, a computerized response system, or a mobile phone.

Text messages are not information services. In describing information services, the Commission has pointed to applications such as email, web hosting, and DNS services¹² because they were capable of “generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications.”¹³

Text messages do not rely on the Internet. There is nothing transformative about text messages. A provider simply relays the user's communication from one place to another, without changing the form or content of the communication. As with a fax, there are no text messaging services beyond the simple and straightforward transmission of information. This is even more true than with voice communications, as there is no text messaging equivalent of voice communications services such as voice mail, call waiting, or three-way calling.

¹¹ Petition at 7-9.

¹² See *In re Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities*, 17 F.C.C.R. 4798 (2002).

¹³ See 47 U.S.C. § 153(20) (definition of “information service”).

From a consumer perspective, it is nonsensical to regulate text messages differently from voice communications. They are, in many ways, interchangeable. Even the most basic phones allow a customer to look up a contact in their address book and choose between calling or texting that individual. Text messaging and voice phone calls are integrated in any number of services, such as when a customer calls directory assistance, has that number texted to their handset, and then uses that number to place a voice call.¹⁴ Third party services allow users to call a phone number, speak a message, and have that message transcribed and sent as a text message to another phone.¹⁵ Other services utilize text messages to initiate low-cost international voice calls.¹⁶

SMS is a Commercial Mobile Radio Service

Commission rules define a mobile service as including

- (a) Both one-way and two-way radio communications services;
- (b) A mobile service which provides a regularly interacting group of base, mobile, portable, and associated control and relay stations (whether licensed on an individual, cooperative, or multiple basis) for private one-way or two-way land mobile radio communications by eligible users over designated areas of operation; and
- (c) Any service for which a license is required in a personal communications service under part 24 of this chapter.¹⁷

A Commercial Mobile Radio Service (CMRS) is a mobile service that is

- (a)(1) provided for profit, *i.e.* which the intent of receiving compensation of monetary gain
- (2) An interconnected service; and

¹⁴ Petition at 13.

¹⁵ *Id.* at 14.

¹⁶ *See, e.g. id* (describing services provided by Rebtel).

¹⁷ 47 C.F.R. § 20.3.

(3) Available to the public, or to such classes of eligible users as to be effectively available to a substantial portion of the public; or

(b) The functional equivalent of such a mobile service described in paragraph (a) of this section.¹⁸

There is no indication that SMS fails to meet any of the elements enumerated above. It is a mobile service that provides multi-directional communications services, is provided for profit by carriers, and is available to any member of the public willing to pay for it.

Additionally, the Commission has long recognized that it is an “interconnected service.”

More importantly, it is critical to view the definition of CMRS, especially the “functional equivalent” section, as it was intended by Congress. The goal of Congress in revising the Communications Act was to protect common carriage even as technology continued to evolve:

A fundamental regulatory step that this legislation takes is to preserve the core principle of common carriage as we move into a new world of services such as PCS. . . . The risk of labeling all services private is that the key principles of nondiscrimination . . . will be swept away. . . . The fact that this legislation ensures PCS, the next generation of communications, will be treated as a common carrier as an important win for consumers and for State regulators and for those who seek to carry those core notions of nondiscrimination and common carriage into the future.¹⁹

By design, there is no technological litmus test for CMRS classification.

Congress intentionally avoided defining CMRS in technology specific language. In addition to an absence of a mention of specific technology in the statutory definition, the statute goes on to explicitly incorporate any “functional equivalent” of the definition supplied. The fact that SMS uses different technological standards than voice calling does not prevent it from being properly classified as a CMRS. Instead, it must be judged

¹⁸ *Id.*

¹⁹ 139 Cong. Rec. H 3,287 (1993) (statement of Rep. Markey).

according to its adherence to statutory definition. By this standard, SMS is (or is functionally equivalent to) a CMRS that should be properly classified under Title II.

SMS is Interconnected to the PSTN

On the issue of PSTN interconnection, Commission precedent indicates that SMS is interconnected to the PSTN, providing an additional basis for treatment as a telecommunications service.

The rules governing Commercial Mobile Radio Service (codified at 47 C.F.R. § 20.3) define “Interconnection or Interconnected” as, “direct or indirect connection through automatic or manual means (by wire, microwave, or other technologies such as store and forward) to permit the transmission or reception of messages or signals to or from points in the public switched network.” The rules further define “interconnected service” as a service:

- (a) That is interconnected with the public switched network, or interconnected with the public switched network through an interconnected service provider, that gives subscribers the capability to communicate to or receive communication from all other users on the public switched network; or
- (b) For which a request for such interconnection is pending pursuant to section 332(c)(1)(B) of the Communications Act, 47 U.S.C. 332(c)(1)(B). A mobile service offers interconnected service even if the service allows subscribers to access the public switched network only during specified hours of the day, or if the service provides general access to points on the public switched network but also restricts access in certain limited ways. Interconnected service does not include any interface between a licensee's facilities and the public switched network exclusively for a licensee's internal control purposes.

The FCC has indicated that the Congressional intent behind the phrase “interconnected service” was to classify as commercial services those mobile services

that “make interconnected service broadly available through their use of the public switched network.”²⁰ The FCC concluded that this approach ensures that a mobile service that gives its customers the capability to communicate with other users of the public switched network should be treated as a common carriage offering.²¹ Further, the phrase “interconnected service” was designed to further the goal of creating regulatory symmetry for similar mobile services.²²

Thus, the FCC concluded that an interconnected service is, “any mobile service that is interconnected with the public switched network . . . that allows subscribers to send or receive messages to or from *anywhere* on the public switched network.”²³ The FCC noted that if a service offered “general access” to the public switched network, but only during specified hours of the day, or had certain limited restrictions on calling (*e.g.*, to “900” numbers), it would still be considered an interconnected service.²⁴ The FCC stated it adopted this position because, “we do not wish to provide any incentive for a mobile service provider to limit access to the public switched network as a means of avoiding regulation as a CMRS provider.”²⁵ In fact, the FCC intended for “interconnected” to encompass mobile services using “store and forward” technology as well.²⁶ Further, in recognition that technology changes and the public switched network is continuously growing and evolving, the FCC considers “any switched common carrier

²⁰ *Implementation of Sections 3(n) and 332 of the Communications Act Regulatory Treatment of Mobile Services, Second Report and Order*, 9 FCC Rcd 1411, ¶ 54 (1994).

²¹ *Id.*

²² *Id.*, at ¶ 55.

²³ *Id.* (emphasis added).

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.*, at ¶ 57.

service that is interconnected with the traditional local exchange or interexchange switched network" to be part of the public switched network.²⁷

SMS service clearly delivers a vast quantity of messages both to and from wireless devices, and those devices are connected to the PSTN. The SMS message follows a similar physical route as other PSTN messages: transmission involves the wireless transmit/receive antennas and mobile switching centers that are used for all other wireless communications, including mobile voice calling.

Some parties incorrectly assert that some SMS messages cannot be delivered to landline telephones.²⁸ However, the facts show that several wireless carriers currently offer the capability to send SMS messages to landline phones; the text message is simply converted to an audio message and the message is delivered either to the intended recipient's telephone or to voice mail. Sprint²⁹ and Verizon³⁰ offer SMS subscribers a feature to text a landline number, in which the landline will ring and read an automatically converted audio version of the SMS if it is either picked up or sent to voice mail. This feature does not require any special equipment or subscription on the part of the landline telephone owner. These SMS services (and any SMS service) thus offer "the capability to communicate to or receive communication from all other users on the public switched network."³¹

²⁷ *Id.*, at ¶ 59.

²⁸ *Id.* at CTIA Comments at 42, T-Mobile Comments at 21-22.

²⁹ http://support.sprint.com/support/article/Send_a_text_message_to_a_landline/case-cx832318-20090918-173806?&INTNAV=SU:SP:MVT.

³⁰ http://support.vzw.com/clc/faqs/TXT%20messaging/faq_text%20to%20landline.html?gclid=1&faq=4.

³¹ 47 C.F.R. § 20.3(a).

SMS Differs from Information Services Such as Email in Critical Ways

Although SMS is similar to email, a service the Commission currently recognizes as an information service,³² SMS is different in important ways. Perhaps most relevantly, SMS does not include a data storage feature. The data storage capability of email was central to the Commission's decision to classify it differently than other types of communication:

The fact that an electronic mail message is stored on an Internet service provider's computers in digital form offers the subscriber extensive capabilities for manipulation of the underlying data. The process begins when a sender uses a software interface to generate an electronic mail message (potentially including files in text, graphics, video or audio formats). The sender's Internet service provider does not send that message directly to the recipient. Rather, it conveys it to a "mail server" computer owned by the recipient's Internet service provider, which stores the message until the recipient chooses to access it. The recipient may then use the Internet service provider's facilities to continue to store all or part of the original message, to rewrite it, to forward all or part of it to third parties, or otherwise to process its contents -- for example, by retrieving World Wide Web pages that were hyperlinked in the message. The service thus provides more than a simple transmission path³³

Text messages are sent through a Short Message Service Center (SMSC) en route to their destination.³⁴ However, unlike with email, the message is not sent to the SMSC server for storage; the message generally is held momentarily while the SMSC server

³² *Federal-State Joint Board on Universal Service, Report to Congress*, 13 FCC Rcd. 11501, ¶ 75 (1998) ("USF Report").

³³ *Id.* at ¶ 78.

³⁴ See, e.g., Joe Macon, *How Does SMS Service Actually Work?* (Oct. 25, 2010), available at <http://searchwarp.com/swa23279.htm>; Jennifer Hord, *How SMS Works*, How Stuff Works, available at <http://communication.howstuffworks.com/sms1.htm>; *How does SMS work?*, Logix Mobile, available at <http://www.logixmobile.com/faq/show.asp?catid=1&faqid=3>.

routes the message to the recipient's device without the opportunity for message manipulation.³⁵

Further, in the case of email, the FCC noted an ISP may continue to store the received message indefinitely, rewrite it, forward it, and/or process the content by accessing web-pages included within the email. This functionality does not typify the SMS experience. Rather, the SMS provider carries and delivers, or attempts to deliver, the message after briefly storing it on an SMSC server. While an SMS message may be briefly held on a SMSC server while the intended recipient is not connected to the network, the recipient cannot access the SMS message on the server, and it is delivered as soon as the receiving device is on and within network range.³⁶

Once delivered, text messages typically exist only in the sender and recipient's mobile device. The SMSC version is deleted and quickly overwritten.³⁷ Similarly, the intended recipient can only receive the message; the recipient has no access to the SMSC server, and cannot manipulate the data of the SMS message on the SMSC server. The near instantaneous delivery of SMS and lack of SMSC access prevents the recipient from modifying the data, and the message delivered is deleted from the network before the recipient can take action to modify it.

³⁵ *Id.*

³⁶ *See, e.g.,* "What is Text Messaging?" *available at* <http://www.wireless.att.com/learn/messaging-internet/messaging/faq.jsp#what-text>; "Text Messaging," *available at* <http://support.vzw.com/clc/faqs/TXT%20messaging/faq.html>.

³⁷ *Text Message Usage Is Exploding, But Usually Provides Useful Evidence Only in Criminal Cases*, Fulcrum Inquiry (Oct. 2010), *available at* <http://www.fulcrum.com/text-messages.htm>.

Thus, unlike email, as soon as a text message is delivered, it is removed from the network without any further action from the consumer.³⁸ Unlike an email, a text message is not stored on or retrievable from the provider's server. Similarly, SMS messages, unlike email, do not remain on the ISP's server until the user affirmatively deletes it. In the event an SMS cannot be delivered, the service provider will try to deliver it, and if undeliverable after a few days, it is deleted rather than stored.³⁹

Additionally, because email is stored on a server, it is accessible on many devices, at many times, and in many locations. An email user could have her Inbox open, check her email on her laptop or mobile device, then hop on a plane and check the same email at a hotel.

Further, an ISP stores an email until the user, who logs-in to check an email Inbox, determines the next action. By contrast, text messages are sent near simultaneously from one end-user's device to the recipient's device, and are delivered without any affirmative action by the recipient to receive it. Like a telephone call, text messages are passively delivered, and recipients are only notified upon delivery.⁴⁰ Indeed, to the extent any storage of the message occurs on the SMSC, it is done only for the purpose of transmitting and delivering the message. Storage of email, on the other hand, facilitates further message manipulation, forwarding, and changes.

³⁸ *Id.*

³⁹ For example, AT&T deletes the message after trying to deliver it for three days. *See* <http://www.wireless.att.com/learn/messaging-internet/messaging/faq.jsp#what-text>. Verizon Wireless deletes the message after trying to deliver it for five days. *See* <http://support.vzw.com/terms/products/messaging.html>

⁴⁰ Devices have "both audible and visual notifications when a message has been received." *See* "Text Messaging," *available at* <http://support.vzw.com/clc/faqs/TXT%20messaging/faq.html>.

Unlike the role of an ISP for an email message, text messages are sent solely using a wireless network as the simple transmission path.⁴¹ The network does not add any formatting, or changes to the message; it simply delivers the data to the passive recipient. The simple transmission path of a SMS message is similar to that of classic telecommunications service. There is a pure transmission path for an SMS, which delivers the text from the sending device to the receiving device.⁴² In the same way, a phone call originates from a user's telephone, and can only be terminated at the recipient's phone or answering device. Email messages, however, have no clear transmission path. The ISP server stores the message while waiting for the user to log-in from any potential location, on many unique devices. This uncertainty requires the server to maintain the ability to modify the message to fit with whatever device requests access.

For these reasons, SMS lacks the statutory characteristics – “generating, acquiring, storing processing, retrieving, utilizing, or making available information” – that define an information service.⁴³ To the extent any “storage” of a text message occurs, it is only for a brief period and for the purpose of completing the transmission. Moreover, SMS services “are marketed to consumers, in large part, as a transmission service” that allows “the user . . . to have the . . . provider transmit ‘between and among points specified by the user . . . information of the user’s choosing, without change in the

⁴¹ See, e.g., *SMS (Short Message Service) – Technical Overview*, ActiveXperts, available at <http://www.activexperts.com/mmserver/sms/smstech/>.

⁴² See *Logix Mobile*, available at <http://www.logixmobile.com/faq/show.asp?catid=1&faqid=3>; see also Joe Macon, *How Does SMS Service Actually Work?* (Oct. 25, 2010), available at <http://searchwarp.com/swa23279.htm>.

⁴³ 47 U.S.C. §153(20).

form or content of the information as sent and received.’’⁴⁴ Consistent precedent has looked to marketing as an indication of whether a provider is in fact “holding out” a telecommunication (transmission) service.⁴⁵

Conclusion

In this proceeding the Bureau has an opportunity to finally clarify the regulatory status of one of our nation’s most important communications platforms. By classifying text messaging as Title II, the Bureau can bring regulatory certainty to the industry and decisively incorporate text messaging into the future of the Universal Service Fund. To do otherwise would be to ignore the relevance of trillions of communications and threaten to marginalize the future of the Commission.

Respectfully submitted,

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⁴⁴ *Regulation of Prepaid Calling Card Services, Declaratory Ruling and Report and Order*, 21 FCC Rcd. 7290, ¶ 15 (2006).

⁴⁵ *Id.*